Alberta
ENVIRONMENT

Reservoir Lands Guideline

Natural Resources Service
Water Management Division

July 1999

ISBN No. 0-7785-1474-9 (Printed ed.)
ISBN No. 0-7785-1475-7 (On-line ed.)
Pub. No. I/875 (Printed, Online ed.)

Reservoir Lands Guideline

Introduction

This guideline addresses the management and use of the lands surrounding Alberta Environment's reservoirs. Section 92 of the *Water Act* gives the department the necessary power to administer lands owned by the department. This guideline provides government departments, municipalities, developers, lot buyers and the general public with tools that will assist all parties in resolving environmental issues associated with development and/or activities adjacent to Alberta Environment's reservoirs.

For the purpose of this guideline, reservoir right-of-way, access right-of-way and bed and shore ("reservoir lands") are lands required for the operation and maintenance of Alberta Environment's reservoirs. "Adjacent lands" are those lands surrounding reservoir lands and are usually privately owned. Proponents are those persons who are proposing developments and/or activities on reservoir lands or on adjacent lands.

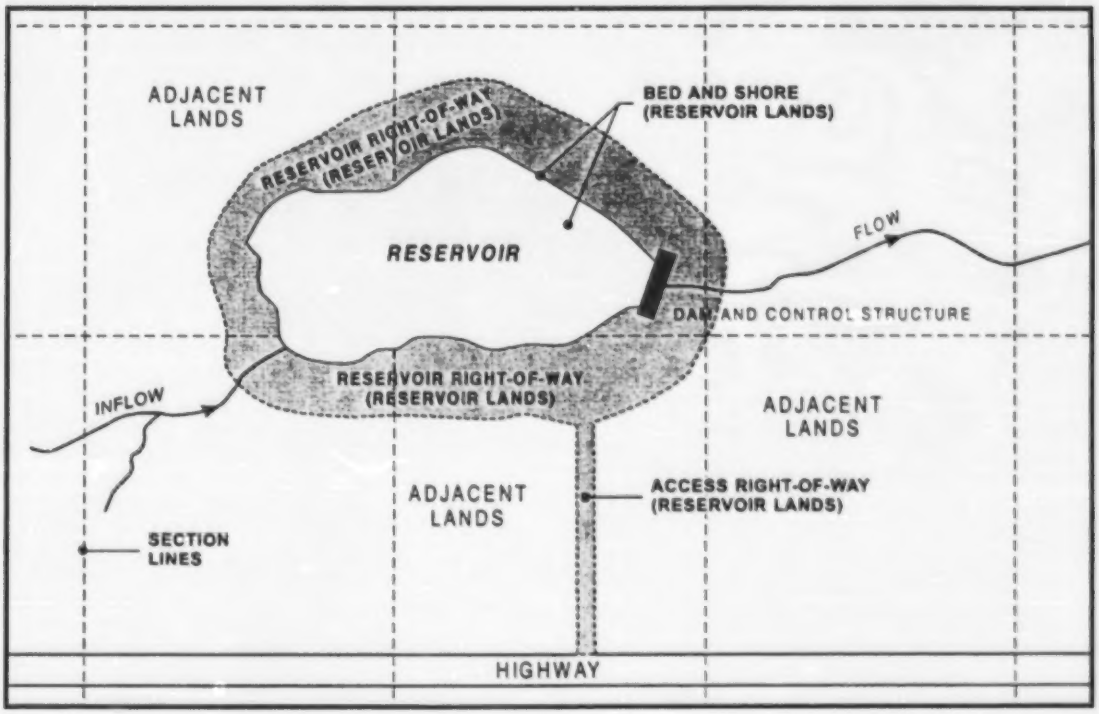

Diagram Showing Typical Reservoir Lands and Adjacent Lands

These reservoir lands are under the administration of Alberta Environment and are used for the purposes of reservoir operation, maintenance and access. Adjacent property owners and the general public often misunderstand the use and purpose of these lands.

These reservoir lands are often desirable for recreational development or grazing purposes. Any unauthorized development on reservoir lands has the potential to have an adverse effect on the water body and on reservoir operations.

Alberta Environment is responsible for approving any developments and/or activities on reservoir lands. The local municipality is responsible for approving any proposed subdivision or development on adjacent (privately owned) lands.

Guideline Goal

The intent of this guideline is to keep the reservoir lands free of any obstructions and unauthorized structures and to ensure that any development on reservoir or adjacent lands does not compromise water supply, public safety or public enjoyment.

Purpose of Reservoirs

Alberta Environment is responsible for a number of water supply reservoirs. The purpose of these reservoirs is to store water during runoff periods for use during other times of the year and to provide a degree of flood control. The water in the reservoir is used to supply the needs of municipalities, industrial users and the farming community, and is also used to provide protection to the aquatic environment by maintaining a continual flow in the stream downstream of the reservoir.

It should be noted that reservoirs have unique operational and maintenance characteristics compared to natural lakes. Unlike lakes, reservoirs tend to have extreme water level fluctuations and a high potential for bank erosion and instability. Due to cyclical demands on these reservoirs, water levels are not always suitable for recreational or aesthetic purposes.

Authority

The following Acts provide the government with the necessary legislative tools to maintain the reservoir for its intended purpose.

- *Environmental Protection and Enhancement Act*
- *Municipal Government Act*
- *Federal Fisheries Act*
- *Provincial Parks Act*
- *Public Lands Act*
- *Safety Codes Act*
- *Water Act*

Public Access and Land Use

When requested, and subject to Section 92 of the *Water Act* (see appendix), the department will provide the public with access to and use of the reservoir and reservoir lands.

Unauthorized Structures on the Reservoir Lands

All structures on reservoir lands must be approved by Alberta Environment. Any structures constructed without prior approval will be deemed to be an unauthorized use of the reservoir lands. The person(s) responsible for the unauthorized structure will be required to remove the structures from the reservoir lands. If the person(s) responsible for the unauthorized structure refuses to remove the structure, the department will take necessary actions under the *Water Act* to ensure its removal.

Requirements for an Application for an Authorized Encumbrance on Reservoir Lands

The proponent must apply to Alberta Environment for an approval prior to the commencement of any activity or works on reservoir lands. Also, the proponent must check with the local municipality to ascertain whether a development permit or other municipal approval is required. It should be noted that not all activities or works will be approved.

The department will not be responsible for any damage to and/or loss of the development, however caused, from occurrences associated with the reservoir.

- The proponent must provide all details of the proposed construction and/or land use, including a construction schedule for all works proposed on reservoir lands. The schedule must outline construction start and completion dates of all proposed facilities and construction methods to be utilized. Approval from the department for structures affecting the bed and shore within the reservoir lands is considered under regulations pertaining to the *Public Lands Act, Water Act* and *Federal Fisheries Act.*

- The proponent may be required, at their expense, to undertake a geotechnical study by a professional engineer to determine the effects of the proposed development activities on shoreline stability and/or seepage of deleterious substances into the reservoir.

- The proponent may be required, at their expense, to undertake an environmental impact assessment under the *Alberta Environmental Protection and Enhancement Act.* In addition to other impacts, the assessment must address the potential effects of such a development on the operations of the reservoir and effects on the quality of water in the reservoir.

- If the geotechnical or environmental studies result in the identification of any impacts, the proponent, at their expense, must propose actions to be carried out to mitigate the impact. If the impact cannot be mitigated, the proposed development will not be approved.

- Location of utilities within reservoir lands, or on adjacent Crown land must be approved by the Regional Director from Natural Resources Service (NRS).

- Where development is to take place on reservoir lands adjacent to a hydroelectric reservoir, the proponent must obtain the agreement of the power company and may also be required to enter into a "Use of Works Agreement" with the power company.

Requirements of an Approval Holder

Once a facility or development on reservoir lands is approved, for the purposes of this guideline, the proponent is now referred to as an approval holder.

- The approval holder must maintain all approved facilities or improvements within the reservoir lands in a diligent and proper manner to the satisfaction of Alberta Environment.

- The approval holder must conduct all activities within the reservoir lands in a diligent and proper manner to the satisfaction of Alberta Environment.

- Should an approval holder cease to operate or maintain any approved facility or improvement, within the reservoir lands, the department will take action under the *Water Act* for all works to be removed by the approval holder, at the approval holder's expense and to the satisfaction of the Regional Director, (NRS).

- Alberta Environment staff, or its agents, may enter the reservoir lands at any time for the purpose of examining the reservoir lands or reservoir infrastructure and to undertake operation and/or maintenance work. The approval holder will not have any claim on Alberta Environment for any inconvenience nor for any loss of business caused by Alberta Environment's entry or work performed.

Proposed Development on Adjacent Lands (private/freehold land)

It is important that Alberta Environment and the municipalities work in a close and co-operative manner to resolve issues arising from developments that may affect the operation of the reservoir.

The municipality should refer subdivision or development applications, or any proposed amendments to statutory plans or land use bylaws on adjacent lands to, Alberta Environment for review and comment.

It should be noted that the prime function of these reservoirs is water supply, and as a result, a stable water level cannot be guaranteed. Due to cyclical demands on the

reservoir, there is serious potential for flooding of surrounding lands, bank erosion or bank failure. It is critical that any development on adjacent lands does not impact the operations of maintenance of, or access to the reservoir. Anyone proposing development on adjacent lands should assess the risk, as should the municipality responsible during its subdivision or development review process.

- Where appropriate, environmental reserves should be obtained in accordance with the *Municipal Government Act*, to ensure that lands subject to flooding, instability or erosion remain in a natural state.

- It may be beneficial to locate municipal reserve parcels adjacent to environmental reserve parcels to create larger public open space areas.

- It is recommended that the proponent install a fence on the boundary of the freehold property and the reserve to restrict vehicle traffic accessing the reservoir lands.

- It is recommended that all developments adjacent to the reservoir lands take place on lands above the one in one hundred year flood level. In some cases, additional freeboard (above the one in one hundred) is required to compensate for wind set-up and wave run-up.

- Structures approved within the one in one hundred year flood level should be flood proofed (see Alberta Environments brochure entitled "Floodproofing").

Where a proponent is proposing activities related to water resources or water infrastructure, the proponent must first obtain the necessary approvals and/or licences as indicated below:

- The proponent must obtain approval under the *Environmental Protection and Enhancement Act*, Sections 2 and 3 of the *Wastewater and Storm Drainage Regulation* for the construction and operation of storm drainage facilities. The applicant is responsible for providing proof of compliance.

- The proponent must obtain approval under the *Safety Codes Act*, *Private Sewage Disposal Regulation*, "Alberta Private Sewage Systems Standard of Practice 1999" for the construction and operation of private domestic sewage treatment and disposal facilities. The applicant is responsible for providing proof of compliance.

- The proponent must obtain approval under the *Environmental Protection and Enhancement Act*, Sections 1(2) and 3 of the *Potable Water Regulation* for the construction and operation of private waterworks systems. The applicant is responsible for providing proof of compliance.

- The proponent must obtain an approval and/or licence under Sections 36 and 49, respectively of the *Water Act* for the diversion and use of water from the reservoir or from other water bodies.

APPENDIX
Water Act

Use of land administered by Minister

92(1) *The Director may, subject to the regulations, by order with respect to public land that is under the administration of the Minister that is related to or used in connection with a works or undertaking in which the Government has a property interest or that is related to an approval, preliminary certificate or licence issued to the Government,*

(a) permit, restrict, prohibit or impose any conditions on

(i) the use of any land or water for any purpose by a person, including but not limited to use by a person's animals,

(ii) the use of any reservoir or part of any reservoir,

(iii) the use, speed, direction of travel, stopping, leaving or parking of any vehicle or thing on any land or reservoir,

(iv) the erection of signs or devices on land, and

(v) any nuisance or noise on land,

and

(b) seize, remove or detain, or direct an owner or operator of a vehicle or thing to remove, any vehicle or thing parked or left in contravention of the regulations, if the vehicle or thing is located on land or a reservoir under the administration of the Minister.

(2) *A person, other than the owner or operator, who seizes, removes or detains a vehicle or thing under subsection (1)(b) must provide a justice with an affidavit describing the vehicle or thing and the reason for the seizure, removal or detention, and describing the disposition of the vehicle or thing.*

(3) *The Director or the owner of a vehicle or thing seized, removed or detained under subsection (1)(b) may make an application to a justice for an order respecting the disposition of it and the justice must*

(a) order that the application be stayed and be dealt with pursuant to section 150, or

(b) if section 150 is not applicable, make an order that the thing seized, removed or detained

(i) be confiscated to the Crown in right of Alberta, or

(ii) be returned to the person who is entitled to it.